TEXTILE RESEARCH JOURNAL

VOLUME 43

JANUARY TO DECEMBER 1973

1973 ANNUAL INDEXES

Textile Research Journal

Volume 43

MONTH	PAGES	MONTH	PAGES
January	1–60	July	371–432
February	61–122	August	433–494
March	123–184	September	495–556
April	185–246	October	557–626
May	247–308	November	627–696
June	309–370	December	697–770

AUTHOR AND TITLE INDEX

Abhiraman, A. S. A New Aspect of the Stochastic Nature of Carding (*George*) . . . 452

Alger, K. W. Effect of Sulfur Dioxide on the Chemical and Physical Properties of Nylon 66 (*Zeronian, Omaye*) . . . 228

Alkidas, A. Fabric Ignition (*Wulff, Hess, Zuber*) . . . 577

Amin, Sanaa A. Studies on Dye Fixation Using Hexahydro-1, 3, 5-Triacryloyl-*s*-Triazine. Part III. (*Hashem, Kamel*) . . . 132

Andrews, B. A. Kottes The Role of Glass-Transition Temperature of Polymeric Additives in Durable-Press Finishing of Knitted Cotton (*Frick*) . . . 19

Andrews, Frederick R. Tension and Resin-Treatment Effects on Properties of Scoured and Mercerized Cotton Fibers and Fabrics of Different Constructions (*Grant, Hebert, Wadsworth, Orr*) . . . 413

Anton, Anthony Some Comments About Predicting Fiber Response by Thermal and Spectroscopic Techniques . . . 524

Arnold, H. W. Heat Transfer from Flammable Fabrics (*Chouinard, Knodel*) . . . 166

Arons, Gilbert N. Sorption Characteristics of Activated Carbon Fabric (*Macnair, Erickson*) . . . 539

Arthur, Jett C., Jr. Photoinitiated Polymerization onto Cotton. Copolymerization of Acrylamide Monomers with Cotton (*Reine, Portnoy*) . . . 638
Thermally Initiated Free-Radical Oxidation of Cellulose (*Hinojosa, Mares*) . . . 609

Backer, Stanley The Mechanics of Snagging in Plain-Knitted Structures (*El-Shiekh*) . . . 262
Utilization of Research Results (*Tordoff*) . . . 367

Balasubramanian, N. Effect of Feeding Conditions at the Ringrame Upon Yarn Quality and Spinning Performance (*Trivedi*) . . . 1

Bankert, R. D. A New Electrochemical Process for the Fabrication of Nonwoven Materials (*Battistelli, Reddy*) . . . 247

Barella, A. Nature of Measurement in the Barella-Viaplane Hairiness Meter (*Vigo*) . . . 493
The Fatigue Behavior of a Warp and its Influence on Weaving Performance (*Picciotto, Hersh*) . . . 428
Comments (*A Barella*) . . . 428
Response (*Roberto Picciotto, S. P. Hersh*) . . . 430

Barker, A. Fatigue Testing of Fibers Under Compressive Flexing (*Dunlop*) . . . 379

Basch, A. Determination of (Ca + Mg) in Flameproofed Cotton Fabrics by EDTA Back-Titration (*Wasserman*) . . . 83
Low Add-on Levels of Chemicals on Cotton and Flame Retardancy (*Lewin*) . . . 693

Battistelli, E. A. A New Electrochemical Process for the Fabrication of Nonwoven Materials (*Bankert, Reddy*) . . . 247

Baxter, J. F. Spunbonded Nonwoven Fabric Studies. I: Characterization of Filament Arrangement in the Web (*Ericson*) . . . 371

Benerito, Ruth R. Chemical Modification of Anion-Exchange Cottons with Propane Sultone (*Ward, Berni, Soignet*) . . . 646

Bernholz, W. F. Chemicals Used as Spin-Finishes for Man-Made Fibers (*Redston, Schlatter*) . . . 325

Berni, Ralph J. Chemical Modification of Anion-Exchange Cottons with Propane Sultone (*Ward, Benerito, Soignet*) . . . 646

Bertoniere, N. R. Gelation Characteristics of Methylolated Melamines Polymerized by Acid Catalysis and Copolymerized with Dimethyloldihydroxyethyleneurea (*Blouin, Martin, Rowland*) . . . 662

Betrabet, S. M. Structural Peculiarities of *G. Herbaceum* Cottons (*Datar, Sundaram*) . . . 718

Bittencourt, Edison Radiation-Induced Addition of Flame Retardants to the Double Bond in Acrylamidomethyl Cellulose (*Walsh, Rutherford*) . . . 590

Blouin, F. A. Gelation Characteristics of Methylolated Melamines Polymerized by Acid Catalysis and Copolymerization with Dimethyloldihydroxyethyleneurea (*Bertoniere, Martin, Rowland*) . . . 662

Bowen, J. H. Combined Effects of Gamma and Ultraviolet Radiation Plus Heat on Fibrous Polyamides (*Hargreaves*) . . . 568

Boyd, Edie G. Effect of Light Source on the Photodegradation of Certain Disperse Dyes (*Irick*) . . . 238

Brand, R. H. Three-Dimensional Geometry of Crimp (*Scruby*) . . . 544

Brown, W. W. Rapid Determination of Bromine-Containing Flame Retardants on Fabrics (*Nelson, Staruch*) . . . 357

Bumb, A. R. Optimum Number of Observations Needed to Estimate Average Staple Length and Fiber Diameter in Indian Wools (*Chatterjee, Saxena*) . . . 588

Byck, Joseph S. Ultrathin Microfiber Lining for Artificial Organs (*Miller, Spivack, Tittmann*) . . . 728

Cameotra, S. S. Effect of Draw Ratio on Moisture Sorption, Dyeability, and Mechanical Properties of Cold-Drawn Nylon 6 Filament (*Varma*) . . . 745

Cannizzaro, Anna M. Microscopical Properties of Some Cellulose Ethers (*Rollins, Stanonis*) . . . 397

Cannon, S. L. Analysis of Transport Phenomena Associated with Convective Drying of a Textile Material. (*Johnson, Meenaghan*) . . . 423

Carra, J. H. Electron Diffraction Measurement of Degree of Crystallite Orientation in Native Cellulose Fibers (*Hebert, Esposito, Rollins*) . . . 260

Cashen, Norton A. Methanesulfonic Acid as Catalyst in Durable-Press Treatments of Cotton (*Reinhardt, Kullman, Reid*) . . . 555

Cates, D. M. The Effect of Crystallinity on the Vapor-Phase Sorption of Acetone in Oriented Poly(ethylene terephthalate) (*Sirur, Guion, Walsh*) . . . 723

Chance, Leon H. A Comparison of Some Amides as Flame Retardants for Cotton (*Morris*) . . . 336

Chatterjee, R. Optimum Number of Observations Needed to Estimate Average Staple Length and Fiber Diameter in Indian Wools (*Bumb, Saxena*) . . . 588

Cheek, G. P. Photodegradation of Nylon 66 Exposed to Near-UV Radiation (*Fornes, Gilbert, Stowe*) . . . 714

Cheng, C. C. The Effect of Fiber Treatment on the Coefficient of Energy Dissipation (*Duckett*) . . . 527

Chouinard, M. P. Heat Transfer from Flammable Fabrics (*Knodel, Arnold*) . . . 166

Claus, William D., Jr. Strain-Wave Reflections During Ballistic Impact of Fabric Panels (*Freeston*) . . . 348

Cuculo, John A. The Reactions of Cellulose with Amic Acids and Anhydride/Ammonia. Part III: Reactivity of α, β-Amic Acids and Corresponding Anhydrides/Ammonia (*Johnson*) . . . 283

Daigle, Donald J. Rot Resistance and Biocidal Activity of Halodeoxycellulose Fabrics (*Vigo, Welch*) . . . 715
Datar, Mrs. K. L. Structural Peculiarities of *G. Herbaceum* Cottons (*Betrabet, Sundaram*) . . . 718
Datyner, A. The Interaction Between Acid Dyes and Nonionic Surfactants and Its Effect on Sorption and Diffusion Behavior. Part III: Diffusion of Dyes into Polyamide 6 Films (*Delaney, Iijima*) . . . 48
de Boer, J. J. The Spiral Angle and Orientation of Swollen and Stretched Single Cotton Fibers and Their Relation to the Fibers Tenacity . . . 141
Delaney, M. J. The Interaction Between Acid Dyes and Nonionic Surfactants and Its Effect on Sorption and Diffusion Behavior. Part III: Diffusion of Dyes into Polyamide 6 Films (*Datyner, Iijima*) . . . 48
Divatia, A. S. Gas-Liquid Chromatography of Trimethylsilyl Derivatives of Cellulose Crosslinking Agents (*Shroff, Srivastava*) . . . 701
Drake, George L., Jr. The Iodometric Determination of P(III) in Flame Retardants for Cotton. Part I: Development of the Method (*Frank*) . . . 633
Duckett, K. E. The Effect of Fiber Treatment on the Coefficient of Energy Dissipation (*Cheng*) . . . 527
Dullaghan, M. E. Polymeric Dye Retarders for Acrylic Fibers (*Ultee*) . . . 10
Dunlop, J. I. Fatigue Testing of Fibers Under Compressive Flexing (*Barker*) . . . 379

El-Shiekh, Aly The Mechanics of Snagging in Plain-Knitted Structures (*Backer*) . . . 262
Erickson, Richard L. Sorption Characteristics of Activated Carbon Fabric (*Arons, Macnair*) . . . 539

Ericson, C. W. Spunbonded Nonwoven Fabric Studies. I: Characterization of Filament Arrangement in the Web (*Baxter*) . . . 371
Esposito, C. R. Electron Diffraction Measurement of Degree of Crystallite Orientation in Native Cellulose Fibers (*Hebert, Carra, Rollins*) . . . 260
Measurement of Changes in Thickness of Compressed Cotton Samples During Swelling (*Porter*) . . . 382
Etters, J. N. Particulate Migration During Drying of Fabric Padded with Dyestuff Dispersions (*Urbanik*) . . . 657
Evans, N. A. Photofading of Rhodamine Dyes. III: The Effect of Wavelength on the Fading of Rhodamine B . . . 697

Feughelman, M. An Electron Spin Resonance Study of the Copper (II) Interaction with Wool-Keratin. Part II: The Nature of the Copper (II) Interaction with Wool-Keratin (*Kokot, Golding*) . . . 146
Fiebig, D. The Effect of Crosslinking Conditions on the Wet-Soiling Behavior of Cotton (*Rezk*) . . . 438
Fincher, K. W. Machine-Washable Flame-Resistant Wool (*Guise, White*) . . . 623
Fisher, Albert L. Laboratory Modeling of Garment Fires (*Krasny*) . . . 272
Fornes, R. R. Photodegradation of Nylon 66 Exposed to Near-UV Radiation (*Gilbert, Stowe, Cheek*) . . . 714
The Effect of Near-Utraviolet Radiation on the Morphology of Nylon 66 (*Stowe, Salvin, Gilbert*) . . . 704
Frank, Arlen W. The Iodometric Determination of P(III) in Flame Retardants for Cotton. Part I: Development of the Method (*Drake*) . . . 633
Frank, Grace C. A Study of Some Factors Affecting the Photodegradation of Textile Yarns. Part I: The Spectral Distributions of Sun-Sky and Xenon-Arc Radiation (*Lock, Stevens*) . . . 483
A Study of Some Factors Affecting the Photodegradation of Textile Yarns. Part II: Nylon 66 and Polyethylene Terephthalate Yarns (*Lock*) . . . 502
Franklin, W. E. Recurable Durable-Press Fabrics. Part III: Textile, Chemical, and Recuring Properties of Fabrics Treated with DMDHEU and Polycarboxylic Acids (*Madacsi, Rowland*) . . . 361
Fraser, W. A. Thermally Induced Surface Deformations of Polypropylene Monofilaments (*Whitwell, Miller*) . . . 123
Freeston, W. Denney, Jr. Strain-Wave Reflections During Ballistic Impact of Fabric Panels (*Claus*) . . . 348
Frick, J. G., Jr. The Role of Glass-Transition Temperature of Polymeric Additives in Durable-Press Finishing of Knitted Cotton (*Andrews*) . . . 19
Friedman, Mendel Enhancement of the Natural Flame-Resistance of Wool (*Whitfield, Tillin*) . . . 212
Wool Modification by Activated Vinyl Compounds (*Koenig, Muir*) . . . 682

Galil, Fahmy Studies in Polyester Fiber Morphology and Related Dyeing and Finishing Properties by the Critical Dissolution Time (CDT) Technique . . . 615
George, Waller A New Aspect of the Stochastic Nature of Carding (*Abhiraman*) . . . 452
Gibson, J. W., Jr. Mechanism of Failure in Women's Hosiery . . . 42
Gilbert, R. D. Photodegradation of Nylon 66 Exposed to Near-UV Radiation (*Fornes, Stowe, Cheek*) . . . 714
The Effect of Near-Ultraviolet Radiation on the Morphology of Nylon 66 (*Stowe, Salvin, Fornes*) . . . 704
Giles, Charles H. Some Quantitative Tests of Intermolecular Bonding Between Aromatic Sulphonates and Simple Carbohydrates in Water, and its Relation to Cellulose Dyeing (*McIntosh*) . . . 489
Golding, R. M. An Electron Spin Resonance Study of the Copper (II) Interaction with Wool-Keratin. Part II: The Nature of the Copper (II) Interaction with Wool-Keratin (*Kokot, Feughelman*) . . . 146
Golub, Samuel J. Removal of Skin Specks in Wool/Acrylic Fabric . . . 60
Goswami, B. C. The Concept and Measurement of Extinguishability as a Flammability Criterion (*Miller, Turner*) . . . 61
Graham, John The Dielectric Properties of Various Cotton Varieties (*Lyons, Seabolt*) . . . 110
Grant, James N. Tension and Resin-Treatment Effects on Properties of Scoured and Mercerized Cotton Fibers and Fabrics of Different Constructions (*Hebert, Andrews, Wadsworth, Orr*) . . . 413
Grosberg, P. The Dimensional Properties of Woven Fabrics Made from Elastomeric Yarns (*Ibrahim*) . . . 448
Gulon, T. H. The Effect of Crystallinity on the Vapor-Phase Sorption of Acetone in Oriented Poly(ethylene terephthalate) (*Sirur, Cates, Walsh*) . . . 723
Guise, G. B. Machine-Washable Flame-Resistant Wool (*Fincher, White*) . . . 623

Hall, David M. A Fundamental Study of the Sorption from Trichloroethylene of Three Disperse Dyes on Polyester (*Perkins*) . . . 115
Haly, A. R. The Heat of Wetting of Annealed Wool (*Smaith*) . . . 54
Hamilton, R. J. Buckling of Wool Weft-Knitted Fabrics (*Postle*) 394
Hargreaves, G. Combined Effects of Gamma and Ultraviolet Radiation Plus Heat on Fibrous Polyamides (*Bowen*) . . . 568
Hashem, M. S. Studies on Dye Fixation Using Hexahydro-1, 3, 5-Triacryloyl-*s*-Triazine. Part III. (*Amin, Kamel*) . . . 132
Hebert, J. J. Electron Diffraction Measurement of Degree of Crystallite Orientation in Native Cellulose Fibers (*Carra, Esposito, Rollins*) . . . 260
Tension and Resin-Treatment Effects on Properties of Scoured and Mercerized Cotton Fibers and Fabrics of Different Constructions. (*Grant, Andrews, Wadsworth, Orr*) . . . 413
Heinisch, K. A Method for the Detection of Intraglucosic Crosslinks in Cellulose Formals (*Rouette, Zollinger*) . . . 306
Hersh, S. P. The Fatigue Behavior of a Warp and its Influence on Weaving Performance (*Barella, Picciotto*) . . . 428
Comments (*A. Barella*) . . . 428
Response (*Roberto Picciotto, S. P. Hersh*) . . . 430
Hess, R. W. Fabric Ignition (*Wulf, Alkidas, Zuber*) . . . 577
HinoJosa, Oscar Thermally Initiated Free-Radical Oxidation of Cellulose (*Arthur, Mares*) . . . 609
Honold, Edith Caustic Sorption in Cotton Fibers as Affected by Fabric Construction, Pretreatment, and Tension Conditions During Crosslinking . . . 408
Howard G. Michael Sewing Needle Temperature. Part III: The Effects of Sewing Conditions (*Virgilio, Mack*) . . . 651

Ibrahim, S. M. The Dimensional Properties of Woven Fabrics Made from Elastomeric Yarns (*Grosberg*) . . . 448
Iijima, T. The Interaction Between Acid Dyes and Nonionic Surfactants and Its Effect on Sorption and Diffusion Behavior. Part III: Diffusion of Dyes into Polyamide 6 Films (*Datyner, Delaney*) . . . 48
Irick, Gether, Jr. Effect of Light Source on the Photodegradation of Certain Disperse Dyes (*Boyd*) . . . 238

Jellinek, H. H. J. Reactions of Linear Polymers with Nitrogen Dioxide and Sulfur Dioxide . . . 557
Johnson, Emmitt H. The Reactions of Cellulose with Amic Acids and Anhydride/Ammonia. Part III: Reactivity of α, β-Amic Acids and Corresponding Anhydrides/Ammonia (*Cuculo*) . . . 283
Johnson, James R. Effect of Phosphorus and Bromine on Burning Rates for Cotton and a Polyester/Cotton Blend (*Moore*) 561
Johnson, R. F. Analysis of Transport Phenomena Associated with Convective Drying of a Textile Material (*Cannon, Meenaghan*) . . . 423

Kamel, M. Studies on Dye Fixation Using Hexahydro-1, 3, 5-Triacryloyl-*s*-Triazine. Part III. (*Amin, Hashem*) . . . 132
Kapoor, I. M. Effect of Drafting Speed at Ring Frame on Yarn Strength and Irregularity (*Sengupta*) . . . 121
Kashiwagi, Kenneth M. Color Characteristics of Traditional Vegetable Dyeing . . . 404
Keül, P. Assessment and Analysis of the Bellows Ventilation of Clothing (*Vokac, Køpke*) . . . 474
Kissa, Erik Adsorption of Particulate Solids on Textiles . . . 86
Knodel, D. C. Heat Transfer from Flammable Fabrics (*Chouinard, Arnold*) . . . 166
Koenig, N. H. Wool Modification by Activated Vinyl Compounds (*Muir, Friedman*) . . . 682
Kokot, S. An Electron Spin Resonance Study of the Copper (II) Interaction with Wool-Keratin. Part II: the Nature of the Copper (II) Interaction with Wool-Keratin (*Feughelman, Golding*) . . . 146
Køpke, V. Assessment and Analysis of the Bellows Ventilation of Clothing (*Vokac, Keül*) . . . 474
Krasny, J. K. Laboratory Modeling of Garment Fires (*Fisher*) 272
Kullman, Russell M. H. Methanesulfonic Acid as Catalyst in Durable-Press Treatments of Cotton (*Reinhardt, Cashen, Reid*) . . . 555
Kusch, P. The Impact of Natural Fiber Science on Manmade Fiber Technology (*Zahn, Müller-Schulte, Nissen, Rossbach*) 601

Lead, Judith A. The Nature and Function of the Resin in the Chlorine/Resin Shrinkproofing Treatment of Wool Tops (*Makinson*) . . . 669
Lewin, Menachem Low Add-on Levels of Chemicals on Cotton and Flame Retardancy (*Basch*) . . . 693
Lipson, M. Modification of the Properties of Wool Through Internal Deposition of Polymers . . . 625

Lock, Leona M. A Study of Some Factors Affecting the Photodegradation of Textile Yarns. Part I: The Spectral Distributions of Sun-Sky and Xenon-Arc Radiation. (*Frank, Stevens*) 483
A Study of Some Factors Affecting the Photodegradation of Textile Yarns. Part II: Nylon 66 and Polyethylene Terephthalate Yarns (*Frank*) 502
Lord, Peter R. Comparison of Physical Properties of Fabrics Woven from Open-End and Ring Spun Yarns (*Mohamed*) 154
Twistless Yarns and Woven Fabrics (*Mohamed*) 96
Lyons, Donald W. The Dielectric Properties of Various Cotton Varieties (*Seabolt, Graham*) 110

Mack, E. R. Sewing Needle Temperature. Part III: The Effects of Sewing Conditions (*Howard, Virgilio*) 651
Macnair, Richard N. Sorption Characteristics of Activated Carbon Fabric (*Arons, Erickson*) 539
Madacsi, J. P. Recurable Durable-Press Fabrics. Part III: Textile, Chemical, and Recuring Properties of Fabrics Treated with DMDHEU and Polycarboxylic Acids (*Franklin, Rowland*) 361
Makinson, K. Rachel The Nature and Function of the Resin in the Chlorine/Resin Shrinkproofing Treatment of Wool Tops (*Lead*) 669
Mares, Trinidad Thermally Initiated Free-Radical Oxidation of Cellulose (*Hinojosa, Arthur*) 609
Margavlo, Matthew F. Activated Imines as Intermediates in Base-Catalyzed Crosslinking of Cotton by N-Methylol Agents (*Welch*) 495
Marsh, J. T. Crease Recovery 57
Martin, L. F. Gelation Characteristics of Methylolated Melamines Polymerized by Acid Catalysis and Copolymerized with Dimethyloldihydroxyethyleneurea (*Blouin, Bertoniere, Rowland*) 662
Matsukawa, Saburo Contribution of Swelling to Wrinkle Recovery for Chemically Crosslinked Cellulosic Fabrics in the Swollen State (*Ohe, Suzuki, Taga*) 513
McIntosh, Alastair Some Quantitative Tests of Intermolecular Bonding Between Aromatic Sulphonates and Simple Carbohydrates in Water, and its Relation to Cellulose Dyeing (*Giles*) 489
Meenaghan, G. F. Analysis of Transport Phenomena Associated with Convective Drying (*Cannon, Johnson*) 423
Mehta, I. H. Changes in Fabric Dimensions During Wet Processing with Particular Reference to the Polyester/Cotton Shirting (*Nanal*) 695
Meier, P. E. Reactions of Wool with Cyanuric Chloride (*Weigmann*) 74
Meredith, R. The Effect of Certain Fiber Properties on Bulk Compressional Resilience of Some Man-Made Fibers (*Varma*) 627
Middelburg, P. H. The Effect of Detergents on the Dynamic Glass-Rubber Transition Temperature of a Polyester/Cotton Fabric 59
Miller, B. The Concept and Measurement of Extinguishability as a Flammability Criterion (*Goswami, Turner*) 61
Thermally Induced Surface Deformations of Polypropylene Monofilaments (*Fraser, Whitwell*) 123
Miller, Walter A. Ultrathin Microfiber Lining for Artificial Organs (*Spivack, Tittmann, Byck*) 728
Mohamed, Mansour H. Comparison of Physical Properties of Fabrics Woven from Open-End and Ring Spun Yarns (*Lord*) 154
Twistless Yarns and Woven Fabrics (*Lord*) 96
Moore, Donald R. Effect of Phosphorus and Bromine on Burning Rates for Cotton and a Polyester/Cotton Blend (*Johnson*) 561
Morris, Cletus E. A Comparison of Some Phosphorus Amides as Flame Retardants for Cotton (*Chance*) 336
Morton, Margaret I. Below-Break Tensile Behavior of Irradiated Nylon. Part I: Ultraviolet-Irradiated Nylon 385
Below-Break Tensile Behavior of Irradiated Nylon. Part II: Gamma-Irradiated Nylon 433
Muir, Mary W. Wool Modification by Activated Vinyl Compounds (*Koenig, Friedman*) 682
Müller-Schulte, D. The Impact of Natural Fiber Science on Manmade Fiber Technology (*Zahn, Kusch, Nissen, Rossbach*) 601

Nanal, S. Y. Changes in Fabric Dimensions During Wet Processing with Particular Reference to the Polyester/Cotton Shirting (*Mehta*) 695
Nasr, Hussein I. Radiation Modification of Cotton Fabrics. Part II: Catalytic Effect of Grafted Acids 607
Nelson, K. H. Rapid Determination of Bromine-Containing Flame Retardants on Fabrics (*Brown, Staruch*) 357
Nelson, Mary L. Properties of Durable-Press Cotton Fabrics Related to Swellability (*Rousselle*) 218
Nissen, D. The Impact of Natural Fiber Science on Manmade Fiber Technology (*Zahn, Kusch, Müller-Schulte, Rossbach*) 601

Ohe, Hideo Contribution of Swelling to Wrinkle Recovery for Chemically Crosslinked Cellulosic Fabrics in the Swollen State (*Suzuki, Taga, Matsukawa*) 513
Ohlson, John L. Lactamide Modification of Durable-Press Resins 242
Omaye, S. T. Effect of Sulfur Dioxide on the Chemical and Physical Properties of Nylon 66 (*Zeronian, Alger*) 228
Orr, Rollins S. Tension and Resin-Treatment Effects on Properties of Scoured and Mercerized Cotton Fibers and Fabrics of Different Constructions (*Grant, Hebert, Andrews, Wadsworth*) 413

Payet, George L. ALMI-Set Process. A New Approach to Carefree Garments 194
Perkins, Warren S. A Fundamental Study of the Sorption from Trichloroethylene of Three Disperse Dyes on Polyester (*Hall*) 115
Picciotto, Roberto The Fatigue Behavior of a Warp and its Influence on Weaving Performance (*Hersh, Barella*) 428
Comments (*A. Barella*) 428
Response (*Roberto Picciotto, S. P. Hersh*) 430
Pierce, A. G., Jr. Chemical and Physical Properties of Cotton Modified by N-Methylol Agents. IV: Release of Formaldehyde (*Vail*) 294
Pittman, Robert A. Obtaining Fiber Length Measurements From a Fibrogram (*Tallant*) 689
Porter, Blanche R. Measurement of Changes in Thickness of Compressed Cotton Samples During Swelling (*Esposito*) 382
Porter, John J. The Stability of Acid, Basic, and Direct Dyes to Light and Water 735
Portnoy, Norman A. Photoinitiated Polymerization onto Cotton. Copolymerization of Acrylamide Monomers with Cotton (*Reine, Arthur*) 638
Postle, R. Jamming of Knitted Structures (*Shanahan*) 532
Buckling of Wool Weft-Knitted Fabrics (*Hamilton*) 394
Purchase, Mary E. Fatty Soil Retention and the Influence of Particulate and Fatty Soils on Yellowing of an Unfinished Dacron/Cotton Blend Fabric (*Rounds, Smith*) 517

Rebenfeld, Ludwig Interactions of Nonaqueous Solvents with Textile Fibers. Part II: Isothermal Shrinkage Kinetics of a Polyester Yarn (*Ribnick, Weigmann*) 176
Reddy, T. B. A New Electrochemical Process for the Fabrication of Nonwoven Materials (*Bankert, Battistelli*) 247
Redston, J. P. Chemicals Used as Spin-Finishes for Man-Made Fibers (*Bernholz, Schlatter*) 325
Reid, J. David Methanesulfonic Acid as Catalyst in Durable-Press Treatments of Cotton (*Reinhardt, Kullman, Cashen*) 555
Reine, Alden H. Photoinitiated Polymerization onto Cotton. Copolymerization of Acrylamide Monomers with Cotton (*Portnoy, Arthur*) 638
Reinhardt, Robert M. Methanesulfonic Acid as Catalyst in Durable-Press Treatments of Cotton (*Kullman, Cashen, Reid*) 555
Rezk, A. A. The Effect of Crosslinking Conditions on the Wet-Soiling Behavior of Cotton (*Fiebig*) 438
Ribnick, Arthur S. Interactions of Nonaqueous Solvents with Textile Fibers. Part II: Isothermal Shrinkage Kinetics of a Polyester Yarn (*Weigmann, Rebenfeld*) 176
Interactions of Nonaqueous Solvents with Textile Fibers. Part III: The Dynamic Shrinkage of Polyester Yarns in Organic Solvents (*Weigmann*) 316
Roberts, Earl J. Enzymatic Hydrolysis as a Source of Structural Information on Cellulose (*Rowland, Wade*) 351
Rogers, Joseph M. Photographic Investigation of High-Speed Missile Impact upon Nylon Fabric. Part I: Energy Absorption and Cone Radial Velocity in Fabric (*Wilde, Roylance*) 753
Roldan, L. G. Grafting to Fiber to Impact High Elasticity (*Williams, Woods, Stannett, Sello, Stevens*) 205
Rollins, M. L. Electron Diffraction Measurement of Degree of Crystallite Orientation in Native Cellulose Fibers (*Hebert, Carra, Esposito*) 260
Microscopical Properties of Some Cellulose Ethers (*Cannizzaro, Stanonis*) 397
Rossbach, V. The Impact of Natural Fiber Science on Manmade Fiber Technology (*Zahn, Kusch, Müller-Schulte, Nissen*) 601
Rouette, H. K. A Method for the Detection of Intraglucosic Crosslinks in Cellulose Formals (*Heinisch, Zollinger*) 306
Rounds, Mary Ann Johnson Fatty Soil Retention and the Influence of Particulate and Fatty Soils on Yellowing of an Unfinished Dacron/Cotton Blend Fabric (*Purchase, Smith*) 517
Rousselle, Marie-Alice Properties of Durable-Press Cotton Fabrics Related to Swellability (*Nelson*) 218
Rowland, Stanley P. Enzymatic Hydrolysis as a Source of Structural Information on Cellulose (*Wade, Roberts*) 351
Gelation Characteristics of Methylolated Melamines Polymerized by Acid Catalysis and Copolymerized with Dimethyloldihydroxyethyleneurea (*Blouin, Bertoniere, Martin*) 662
Recurable Durable-Press Fabrics. Part III: Textile, Chemical, and Recuring Properties of Fabrics Treated with DMDHEU and Polycarboxylic Acids (*Franklin, Madacsi*) 361
Roylance, David Ballistic Impact of Textile Structure (*Wilde, Tocci*) 34
Photographic Investigation of High-Speed Missile Impact upon Nylon Fabric. Part I: Energy Absorption and Cone Radial Velocity in Fabric (*Wilde, Rogers*) 753
Rusznák, I. Finishing of Textile Fabrics by the Thermotex Process 128
Rutherford, Henry A. Radiation-Induced Addition of Flame Retardants to the Double Bond in Acrylamidomethyl Cellulose (*Walsh, Bittencourt*) 590
Rys, P. The Interaction of Mass Diffusion and Chemical Reaction During Finishing and Dyeing of Textiles 24

Salvin, V. S. The Effect of Near-Ultraviolet Radiation on the Morphology of Nylon 66 (*Stowe, Fornes, Gilbert*) 704
Saxena, S. K. Optimum Number of Observations Needed to Estimate Average Staple Length and Fiber Diameter in Indian Wools (*Chatterjee, Bumb*) 588
Schick, M. J. Friction and Lubrication of Synthetic Fibers. Part I: Effect of Guide Surface Roughness and Speed on Fiber Friction 103
Friction and Lubrication of Synthetic Fibers. Part II: Two-Component Systems 198
Friction and Lubrication of Synthetic Fibers. Part III: Effect of Guide Temperature, Loop Size, Pretension, Denier, and Moisture Regain on Fiber Friction 254
Friction and Lubrication of Synthetic Fibers. Part IV: Effect of Fiber Material and Lubricant Viscosity and Concentration 342

Schlatter, C. Chemicals Used as Spin-Finishes for Man-Made Fibers (*Redston, Bernholz*) . . . 325
Scruby, R. E. Three-Dimensional Geometry of Crimp (*Brand*) 544
Seabolt, Jarvis A. The Dielectric Properties of Various Cotton Varieties (*Lyons, Graham*) . . . 110
Segal, Leon Concerning the Restoration by Resin Stripping of the Tensile Properties Cotton Fabric Finished with Dimethylolethyleneurea (*Timpa*) . . . 748
Strength Losses and Structural Changes in Cotton Fabric Crosslinked with Dimethylolethyleneurea (*Timpa*) . . . 185
The Effects of Formaldehyde Pad-Bake-Cure Process on Cellulose Molecular Chain Length and Physical Properties of Cotton Fabrics (*Timpa*) . . . 468
Sello, S. B. Grafting to Fibers to Impact High Elasticity (*Williams, Woods, Stannett, Roldan, Stevens*) . . . 205
Permanent Setting of Washable Wool (*Tesoro*) . . . 309
Sengupta, A. K. Effect of Drafting Speed at Ring Frame on Yarn Strength and Irregularity (*Kapoor*) . . . 121
Shanahan, W. J. Jamming of Knitted Structures (*Postle*) . . . 532
Shroff, J. J. Effect of Neighboring Groups on the Methylolation of Acid Amides (*Shukla, Srivastava*) . . . 300
Gas-Liquid Chromatography of Trimethylsilyl Derivatives of Cellulose Crosslinking Agents (*Divatia, Srivastava*) . . . 701
Shukla, V. A. Effect of Neighboring Groups on the Methylolation of Acid Amides (*Shroff, Srivastava*) . . . 300
Sirur, P. V. The Effect of Crystallinity on the Vapor-Phase Sorption of Acetone in Oriented Poly(ethylene terephthalate) (*Cates, Guion, Walsh*) . . . 723
Smith, B. F. Fatty Soil Retention and the Influence of Particulate and Fatty Soils on Yellowing of an Unfinished Dacron/Cotton Blend Fabric (*Rounds, Purchase*) . . . 517
Snaith, J. W. The Heat of Wetting of Annealed Wool (*Haly*) 54
Soignet, Donald M. Chemical Modification of Anion-Exchange Cottons with Propane Sultone (*Ward, Benerito, Berni*) . . . 646
Spei, M. Structure of α-Keratin . . . 692
Spivack, Mark A. Ultrathin Microfiber Lining for Artificial Organs (*Miller, Tittmann, Byck*) . . . 728
Srivastava, H. C. Effect of Neighboring Groups on the Methylolation of Acid Amides (*Shukla, Shroff*) . . . 300
Gas-Liquid Chromatography of Trimethylsilyl Derivatives of cellulose Crosslinking Agents (*Divatia, Shroff*) . . . 701
Stannett, V. Grafting to Fibers to Impact High Elasticity (*Williams, Woods, Roldan, Sello, Stevens*) . . . 205
Stanonis, David J. Microscopical Properties of Some Cellulose Ethers (*Cannizzaro, Rollins*) . . . 397
Staruch, S. J. Rapid Determination of Bromine-Containing Flame Retardants on Fabrics (*Nelson, Brown*) . . . 357
Stevens, C. V. Grafting to Fibers to Impact High Elasticity (*Williams, Woods, Stannett, Roldan, Sello*) . . . 205
Stevens, J. R. A Study of Some Factors Affecting the Photodegradation of Textile Yarns. Part I: The Spectral Distributions of Sun-Sky and Xenon-Arc Radiation (*Lock, Frank*) . . . 483
Stowe, B. S. Photodegradation of Nylon 66 Exposed to Near-UV Radiation (*Fornes, Gilbert, Cheek*) . . . 714
The Effect of Near-Ultraviolet Radiation on the Morphology of Nylon 66 (*Salvin, Fornes, Gilbert*) . . . 704
Sundaram, V. Structural Peculiarities of *G. Herbaceum* Cottons (*Datar, Betrabet*) . . . 718
Suzuki, Yasuo Contribution of Swelling to Wrinkle Recovery for Chemically Crosslinked Cellulosic Fabrics in the Swollen State (*Ohe, Taga, Matsukawa*) . . . 513

Taga, Kiyoshi Contribution of Swelling to Wrinkle Recovery for Chemically Crosslinked Cellulosic Fabrics in the Swollen State (*Ohe, Suzuki, Matsukawa*) . . . 513
Tallant, John D. Obtaining Fiber Length Measurements From a Fibrogram (*Pittman*) . . . 689
Tesoro, G. C. Permanent Setting of Washable Wool (*Sello*) . . . 309
Throne, James L. Some Observations on Shrinkage when Exposed to Flame . . . 642
Tillin, S. Enhancement of the Natural Flame-Resistance of Wool (*Friedman, Whitfield*) . . . 212
Timpa, Judy D. Strength Losses and Structural Changes in Cotton Fabric Crosslinked with Dimethylolethyleneurea (*Segal*) . . . 185
Concerning the Restoration by Resin Stripping of the Tensile Properties of Cotton Fabric Finished with Dimethylolethyleneurea (*Segal*) . . . 748
The Effects of Formaldehyde Pad-Bake-Cure Process on Cellulose Molecular Chain Length and Physical Properties of Cotton Fabrics (*Segal*) . . . 468
Tittmann, Frederick R. Ultrathin Microfiber Lining for Artificial Organs (*Miller, Spivack, Byck*) . . . 728
Tocci, Gregory Ballistic Impact of Textile Structures (*Roylance, Wilde*) . . . 34
Tordoff, Maurice Utilization of Research Results (*Backer*) . . . 367
Trivedi, G. K. Effect of Feeding Conditions at the Ringframe Upon Yarn Quality and Spinning Performance (*Balasubramanian*) . . . 1
Turner, R. The Concept and Measurement of Extinguishability as a Flammability Criterion (*Miller, Goswami*) . . . 61

Ultee, A. J. Polymeric Dye Retarders for Acrylic Fibers (*Dullaghan*) . . . 10
Urbanik, A. Particulate Migration During Drying of Fabric Padded with Dyestufff Dispersions (*Etters*) . . . 657

Vail, Sidney L. Chemical and Physical Properties of Cotton Modified by N-Methylol Agents. III: Observations on Polymerization and Crosslinking of Melamine-Based Reagents with Cotton (*Verburg*) . . . 67
Chemical and Physical Properties of Cotton Modified by N-Methylol Agents. IV: Release Formaldehyde (*Pierce*) . . . 294
Varma, D. S. Effect of Draw Ratio on Moisture Sorption, Dyeability, and Mechanical Properties of Cold-Drawn Nylon 6 Filament (*Cameotra*) . . . 745
The Effect of Certain Fiber Properties on Bulk Compressional Resilience of Some Man-Made Fibers (*Meredith*) . . . 627
Verburg, Gerald B. Chemical and Physical Properties of Cotton Modified by N-Methylol Agents. III: Observations on Polymerization and Crosslinking of Melamine-Based Reagents with Cotton (*Vail*) . . . 67
Vigo, J. P. Nature of Measurement in the Barella-Viaplana Hairiness Meter (*Barella*) . . . 493
Vigo, Tyrone L. Rot Resistance and Biocidal Activity of Halodeoxycellulose Fabrics. (*Daigle, Welch*) . . . 715
Virgillo, D. R. Sewing Needle Temperature. Part III: The Effects of Sewing Conditions (*Howard, Mack*) . . . 651
Vokac, Z. Assessment and Analysis of the Bellows Ventilating of Clothing (*Kopke, Keul*) . . . 474

Wade, Clinton P. Enzymatic Hydrolysis as a Source of Structural Information on Cellulose (*Rowland, Roberts*) . . . 351
Wadsworth, James I. Tension and Resin-Treatment Effects on Properties of Scoured and Mercerized Cotton Fibers and Fabrics of Different Constructions (*Grant, Hebert, Andrews, Orr*) . . . 413
Walsh, W. K. The Effect of Crystallinity on the Vapor-Phase Sorption of Acetone in Oriented Poly(ethylene terephthalate) (*Sirur, Cates, Guion*) . . . 723
Radiation-Induced Addition of Flame Retardants to the Double Bond in Acrylamidomethyl Cellulose (*Bittencourt, Rutherford*) . . . 590
Ward, Truman L. Chemical Modification of Anion-Exchange Cottons with Propane Sultone (*Benerito, Berni, Soignet*) . . . 646
Wasserman, T. Determination of (Ca + Mg) in Flameproofed Cotton Fabrics by EDTA Back-Titration (*Basch*) . . . 83
Weigmann, Hans-Dietrich Interactions of Nonaqueous Solvents with Textile Fibers. Part II: Isothermal Shrinkage Kinetics of a Polyester Yarn (*Ribnick, Rebenfeld*) . . . 176
Reactions of Wool with Cyanuric Chloride (*Meier*) . . . 74
The Interactions of Nonaqueous Solvents with Textile Fibers. Part III: The Dynamic Shrinkage of Polyester Yarns in Organic Solvents (*Ribnick*) . . . 316
Welch, Clark M. Activated Imines as Intermediates in Base-Catalyzed Crosslinking of Cotton by N-Methylol Agents (*Margavio*) . . . 495
Rot Resistance and Biocidal Activity of Halodeoxycellulose Fabrics (*Vigo, Daigle*) . . . 715
White, M. A. Machine-Washable Flame-Resistant Wool (*Fincher, Guise*) . . . 623
Whitfield, R. E. Enhancement of the Natural Flame-Resistance of Wool (*Friedman, Tillin*) . . . 212
Whitwell, J. C. Thermally Induced Surface Deformations of Polypropylene Monofilaments (*Fraser, Miller*) . . . 123
Wilde, Anthony Ballistic Impact of Textile Structures (*Roylance, Tocci*) . . . 34
Photographic Investigation of High-Speed Missile Impact upon Nylon Fabric. Part I: Energy Absorption and Cone Radial Velocity in Fabric (*Roylance, Rogers*) . . . 753
Williams, J. L. Grafting to Fibers to Impact High Elasticity (*Woods, Stannett, Roldan, Sello, Stevens*) . . . 205
Woods, D. K. Grafting to Fibers to Impact High Elasticity (*Williams, Stannett, Roldan, Sello, Stevens*) . . . 205
Wulff, W. Fabric Ignition (*Alkidas, Hess, Zuber*) . . . 577

Zahn, H. The Impact of Natural Fiber Science on Manmade Fiber Technology (*Kusch, Müller-Schulte, Nissen, Rossbach*) . . . 601
Zeronian, S. H. Effect of Sulfur Dioxide on the Chemical and Physical Properties of Nylon 66 (*Alger, Omaye*) . . . 228
Zollinger, H. A Method for the Detection of Intraglucosic Crosslinks in Cellulose Formals (*Heinisch, Rouette*) . . . 306
Zuber, N. Fabric Ignition (*Wulff, Alkidas, Hess*) . . . 577

SUBJECT INDEX

Absorption
energy absorption and cone radial velocity: photographic investigation of high-speed missile impact upon nylon fabric *Wilde, Roylance, Rogers* . . . 753
Additives
polymeric additives: role of glass-transition temperature in durable-press finishing of knitted cotton *Andrews, Frick* . . . 19
Adsorption
adsorption of particulate solids on textiles *Kissa* . . . 86
Amides
phosphorus amides: comparison as flame retardants for cotton *Morris, Chance* . . . 336
Analysis
determination of (Ca + Mg): flameproofed cotton fabrics by EDTA back-titration *Wasserman, Basch* . . . 83
rapid determination: bromine-containing flame retardants on fabrics *Nelson, Brown, Staruch* . . . 357
transport-phenomena analysis: associated with convective drying of textile material *Cannon, Johnson, Meenaghan* . . . 423
Artificial Organs
lining for artificial organs: ultrathin microfiber *Miller, Spivack, Tittmann, Byck* . . . 728
Ballistics
ballistic impact of fabric panels: strain-wave reflections *Freeston, Claus* . . . 348
ballistic impact of textile structures *Roylance, Wilde, Tocci* . . . 34

Bioactivity
biocidal activity and rot resistance: halodeoxycellulose fabrics *Vigo, Daigle, Welch* . . . 715
Blends
polyester/cotton blend and cotton: effect of phosphorus and bromine burning rates *Johnson, Moore* . . . 561
unfinished Dacron/cotton blend fabric: fatty soil retention and influence of particulate and fatty soils on yellowing *Rounds, Purchase, Smith* . . . 517
wool/acrylic fabric: removal of skin specks *Golub* . . . 60
Burn (see **Flammability**)

Carding
carding: new aspect of stochastic nature *Abhiraman, George* . 452
Catalysis, Catalysts
acid catalysis: gelation characteristics of methylolated melamines polymerized and copolymerized with DMDHEU *Blouin, Bertoniere, Martin, Rowland* . . . 662
catalyst: methanesulfonic acid in durable-press treatments of cotton *Reinhardt, Kullman, Cashen, Reid* . . . 555
catalytic effect of grafted acids: radiation modification of cotton fabrics *Hussein* . . . 607
Cellulose
cellulose: enzymatic hydrolysis as a source of structural information *Rowland, Wade, Roberts* . . . 351
cellulose formals: method for detection of intraglucosic crosslinks *Heinisch, Rouette, Zollinger* . . . 306
cellulose: molecular chain length and physical properties of cotton fabrics; effects of formaldehyde pad-bake-cure process *Segal, Timpa* . . . 468
cellulose: thermally initiated free-radical oxidation *Hinojosa, Arthur, Mares* . . . 609
Cellulose Derivatives
acrylamidomethyl cellulose: radiation-induced addition of flame retardants to the double bond *Walsh, Bittencourt, Rutherford* . . . 590
cellulose ethers: microscopical properties *Cannizzaro, Rollins, Stanonis* . . . 397
trimethylsilyl derivatives of cellulose crosslinking agents: gas-liquid chromatography *Divatia, Shroff, Srivastava* . . . 701
Chemical and Physical Properties (see **Properties, Chemical, Mechanical, Physical**)
Chemical Reactions
chemical reaction and mass diffusion: interaction during finishing and dyeing of textiles *Rys* . . . 24
reactions of cellulose with α, β-amic acids and corresponding anhydrides/ammonia *Johnson, Cuculo* . . . 283
reactions of linear polymers with nitrogen dioxide and sulfur dioxide *Jellinek* . . . 557
reactions: wool with cyanuric chloride *Meier, Weigmann* . . . 74
Clothing (also see **Garments**)
clothing: assessment and analysis of bellows ventilation *Vokac, Køpke, Keül* . . . 474
Component Systems
cotton and polyester/cotton blend: effect of phosphorus and bromine burning rates *Johnson, Moore* . . . 561
two-component systems: friction and lubrication of synthetic fibers *Schick* . . . 198
Chromatography
gas-liquid chromatography: trimethylsilyl derivatives of cellulose crosslinking agents *Divatia, Shroff, Srivastava* . . . 701
Cotton
cotton thickness: recovery from compression and swelling *Porter, Esposito* . . . 382
spiral angle and orientation: swollen and stretched single cotton fibers in relation to fiber tenacity *de Boer* . . . 141
various cotton varieties: dielectric properties *Lyons, Seabolt, Graham* . . . 110
Cotton, Chemically Treated
anion-exchange cottons with propane sultone: chemical modification *Ward, Benerito, Berni, Soignet* . . . 646
cotton: activated imines as intermediates in base-catalyzed crosslinking by N-methylol agents *Welch, Margavio* . . . 495
cotton: crosslinking conditions on wet-soiling behavior *Fiebig, Rezk* . . . 438
cotton: low add-on levels of chemicals and flame retardancy *Basch, Lewin* . . . 693
cotton: methanesulfonic acid as catalyst in durable-press treatments *Reinhardt, Kullman, Cashen, Reid* . . . 555
cotton: polymerization and crosslinking of melamine-based reagents *Vail, Verburg* . . . 67
cotton with acrylamide monomers copolymerized: photoinitiated polymerization onto cotton *Reine, Portnoy, Arthur* . . . 638
flame retardants for cotton: iodometric determination of P(III) *Frank, Drake* . . . 633
G. Herbaceum cottons: structural peculiarities *Datar, Betrabet, Sundaram* . . . 718
Crease
crease recovery *Haly, Snaith* . . . 57
Crimp
crimp: three-dimensional geometry *Brand, Scruby* . . . 544
Crosslinking, Crosslinks
base-catalyzed crosslinking of cotton by N-methylol agents: activated imines as intermediates *Welch, Margavio* 495
cotton fabric crosslinked with dimethylolethyleneurea: strength losses and structural changes *Segal, Timpa* . . . 185
crosslinking and polymerization of melamine-based reagents with cotton *Vail, Verburg* . . . 67
crosslinking by fabric construction, treatment, and tension: caustic sorption in cotton fibers. *Honold* . . . 408
effect of crosslinking conditions: wet-soiling behavior of cotton *Fiebig, Rezk* . . . 438
intraglucosic crosslinks: detection in cellulose formals *Heinisch, Rouette, Zollinger* . . . 306
Cure, Curing
formaldehyde pad-bake-cure process: effects on cellulose molecular chain length and physical properties of cotton fabrics *Segal, Timpa* . . . 468
textile, chemical, and recuring properties: cotton fabric treated with DMDHEU and polycarboxylic acid *Franklin, Madacsi, Rowland* . . . 361

Deformation
surface deformations: thermally induced polypropylene monofilaments *Fraser, Whitwell, Miller* . . . 123
Detergency
detergents effect: dynamic glass-rubber transition of a polyester/cotton fabric *Middelburg* . . . 59
Dielectrics
dielectric properties: various cotton varieties *Lyons, Seabolt, Graham* . . . 110
Diffraction
electron diffraction measurement: degree of crystallite orientation in native cellulose fibers *Hebert, Carra, Esposito, Rollins* . . . 260
Diffusion
diffusion: dyes into polyamide 6 films *Datyner, Delaney, Iijima* . . . 48
mass diffusion and chemical reaction: inter-action during finishing and dyeing of textiles *Rys* . . . 24
Drafting
drafting speed at ring frame: effect on yarn strength and irregularity *Sengupta, Kapoor* . . . 121
Drying
convective drying of textile material: analysis of transport phenomena *Cannon, Johnson, Meenaghan* . . . 423
drying of fabric padded with dyestuff dispersions: particulate migration *Urbanik, Etters* . . . 657
Durable Press
durable-press cotton fabrics: properties related to swellability properties *Nelson, Rouselle* . . . 218
durable-press finishing of knitted cotton: role of glass-transition temperature of polymeric additives *Andrews, Frick* 19
durable-press resins: lactamide modification *Ohlson* . . . 242
durable-press treatments of cotton: methanesulfonic acid as catalyst *Reinhardt, Kullman, Cashen, Reid* . . . 555
Dyeing
dyeing and finishing of textiles: interaction of mass diffusion and chemical reaction *Rys* . . . 24
dyeing and heat-setting of polyamide fiber: response to thermal and spectroscopic techniques *Anton* . . . 524
dye fixation: hexahydrol-1,3,5-triacryloyl-s-triazine *Amin, Hashem, Kamel* . . . 132
dyeing of polyester: sorption from trichloroethylene three disperse dyes *Perkins, Hall* . . . 115
dye retardation: new approach *Dullaghan, Ultee* . . . 10
effect of draw ratio on dyeability, moisture sorption, and mechanical properties of cold-drawn nylon 6 filament *Varma, Cameotra* . . . 745
mechanism of cellulose dyeing: quantitative tests of intermolecular bonding between aromatic sulphonates and simple carbohydrates in water *Giles, McIntosh* . . . 489
morphology and related dyeing and finishing properties: CDT technique of polyester fiber *Galil* . . . 615
traditional vegetable dyeing: color characteristics *Kashiwagi* 404
Dyes
acid, basic, and direct dyes: stability to light and water *Porter* . . . 735
certain disperse dyes: effects of light source on photodegradation *Irick, Boyd* . . . 238
dyes: diffusion into polyamide 6 films *Datyner, Delaney, Iijima* 48
dyestuff dispersions: particulate migration during drying of padded fabric *Urbanik, Etters* . . . 657
polymeric dye retarders for acrylic fibers *Dullaghan, Ultee* 10
Rhodamine B (C. I. 45170): effect of wavelength on fading *Evans* . . . 697
three disperse dyes on polyester: fundamental study of sorption from trichloroethylene *Perkins, Hall* . . . 115
traditional vegetable dyes: color characteristics *Kashiwagi* 404

Elasticity
impact high elasticity: grafting to fibers *Williams, Woods, Stannett, Roldan, Sello, Stevens* . . . 205
Electrochemistry
new electrochemical process: fabrication of nonwoven materials *Banker, Battistelli, Reddy* . . . 247
Electron Spin Resonance
electron spin resonance: nature of copper (II) interaction with wool-keratin *Kokot, Feughelman, Golding* . . . 146
Enzymes
cellulose enzymatic hydrolysis: structural information on cellulose, *Rowland, Wade, Roberts* . . . 351

Fabrics
activated carbon fabric: sorption characteristics *Arons, Macnair, Erickson* . . . 539
cellulosic fabrics: chemically crosslinked in the swollen state; swelling to wrinkle recovery *Ohe, Suzuki, Taga, Matsukawa* 513
compressed cotton fibers and fabrics during swelling: measurement changes in thickness *Porter, Esposito* . . . 382
cotton fabric crosslinked with dimethylolethyleneurea: strength losses and structural changes *Segal, Timpa* . . . 185
cotton fabric finished with DMEU: restoration by resin stripping of tensile properties *Segal, Timpa* . . . 748
cotton fabrics: durable-press properties related to swellability *Nelson, Rousselle* . . . 218

cotton fabrics: dyeing and finishing by Thermotex Process *Ruszndk* 128
cotton fabrics: formaldehyde pad-bake-cure effects on cellulose molecular chain length and physical properties *Segal, Timpa* 468
cotton fabrics radiation modification: catalytic effect of grafter acids *Hussein* 607
cotton fabrics treated with DMDHEU and polycarboxylic acids: textile, chemical, and recuring properties *Franklin, Madasci, Rowland* 361
fabric changes: dimensions during wet processing with particular reference to polyester/cotton shirting *Mehta, Nanal* 695
fabric ignition *Wulff, Alkidas, Hess, Zuber* 577
fabric padded with dyestuff dispersions: particulate migration during drying *Urbanik, Etters* 657
fabric panels: strain-wave reflections during ballistic impact *Freeston, Claus* 348
fabrics flammable: heat transfer *Chouinard, Knodel, Arnold* 166
fabrics: rapid determination of bromine-containing flame retardants *Nelson, Brown, Staruch* 357
fabrics woven from open-end and ring spun yarns: comparison of physical properties *Mohamed, Lord* 154
flameproofed cotton fabrics: determination of (Ca + Mg) by EDTA back-titration *Wasserman, Basch* 83
halodeoxycellulose fabrics: rot resistance and biocidal activity *Vigo, Daigle, Welch* 715
nylon 66 fabric: degradation by effect of sulfur dioxide on chemical and physical properties *Zeronian, Alger, Omaye* 228
nylon fabric: energy absorption and cone radial velocity in fabric; photographic investigation of high-speed missile impact *Wilde, Roylance, Rogers* 753
polyester/cotton fabric: effect of detergents on the dynamic glass-rubber transition temperature *Middelburg* 59
scoured and mercerized cotton fibers and fabrics of different constructions: tension and resin-treatment effects *Grant, Hebert, Andrews, Wadsworth, Orr* 413
spunbonded nonwoven fabrics: characterization of filament arrangement in the web *Ericson, Baxter* 371
unfinished Dacron/cotton blend fabric: fatty soil retention and influence of particulate and fatty soils on yellowing *Rounds, Purchase, Smith* 517
washable wool fabric: permanent setting *Sello, Tesoro* 309
wool/acrylic fabric: removal of skin specks *Golub* 60
wool weft-knitted fabrics: buckling *Hamilton, Postle* 394
woven fabrics and twistless yarns *Lord, Mohamed* 96
woven fabrics: dimensional properties made from elastomeric yarns *Grosberg, Ibrahim* 448

Fatigue
fatigue behavior: warp and its influence on weaving performance *Barella, Picciotto, Hersh* 428
Comments *A. Barella* 428
Response *Roberto Picciotto and S. P. Hersh* 430
fatigue testing: fibers under compressive flexing *Dunlop, Barker* 379

Fiber Migration
particulate migration: drying of fabric padded with dyestuff dispersions *Urbanik, Etters* 657

Fibers
acrylic fibers: polymeric dye retarders *Dullaghan, Ultee* 10
compressed cotton fibers and fabrics during swelling: measurement changes in thickness *Porter, Esposito* 382
cotton fibers as caustic sorption: fabric construction, pretreatment, and tension conditions during crosslinking *Honold* 408
cotton fiber treatment: coefficient of energy dissipation *Cheng, Duckett* 527
fiber: effect of guide surface roughness and speed on friction *Schick* 103
fibers under compressive flexing: fatigue testing *Dunlop, Barker* 379
grafting to fibers: impact high elasticity *Williams, Woods, Stannett, Roldan, Sello, Stevens* 205
man-made fibers: chemicals used as spin-finishes *Redston, Bernholz, Schlatter* 325
manmade fiber technology: impact of natural fiber science *Zahn, Kusch, Müller-Schulte, Nissen, Rossbach* 601
native cellulose fibers: electron diffraction measurement of degree of crystallite orientation *Hebert, Carra, Esposito, Rollins* 260
natural fiber science: impact on manmade of fiber technology *Zahn, Kusch, Müller-Schulte, Nissen, Rossbach* 601
oriented PET fibers: effect of crystallinity on vapor-phase sorption of acetone *Sirur, Cates, Guion, Walsh* 723
polyamide fiber: response by thermal and spectroscopic techniques during dyeing and heat-setting *Anton* 524
polyester fiber: morphology and related dyeing and finishing properties by the CDT technique *Galil* 615
scoured and mercerized cotton fibers and fabrics of different constructions: tension and resin-treatment effects *Grant, Hebert, Andrews, Wadsworth, Orr* 413
single cotton fibers: spiral and orientation of swollen and stretched in relation to fiber tenacity *de Boer* 141
some man-made fibers: effects of certain fiber properties on bulk compressional resilience *Varma, Meredith* 627
synthetic fibers: friction and lubrication; guide temperature, loop size, pretension, denier, and moisture regain *Schick* 254
synthetic fibers: friction and lubrication; two-component systems *Schick* 198
synthetic fibers: lubricant viscosity, and concentration effect on friction *Schick* 342
ultrathin microfiber: lining for artificial organs *Miller, Spivack, Tittmann, Byck* 728

Fibrogram
fiber length measurements from fibrogram *Tallant, Pittman* 689

Filaments
cold-drawn nylon 6 filament: effect of draw ratio on moisture sorption, dyeability, and mechanical properties *Varma, Cameotra* 745

Films
polyamide 6 films: diffusion of dyes *Datyner, Delaney, Iijima* 48

Finishing
finishing and dyeing of textiles: interaction of mass diffusion and chemical reaction *Rys* 24
finishing of knitted cotton: role of glass-transition temperature of polymeric additives in durable-press *Andrews, Frick* 19
finishing: textile cotton fabrics by Thermotex Process *Ruszndk* 128
morphology and related dyeing and finishing properties: CDT technique of polyester fiber *Galil* 615
spin-finish chemicals: for man-made fibers *Redston, Bernholz, Schlatter* 325

Fire (see **Flammability**)

Flame (see **Flammability**)

Flammability, Flameproof, Flame Resistance, Flame Retardants
bromine-containing flame retardants: rapid determination on fabrics *Nelson, Brown, Staruch* 357
burning rates: effect of phosphorus and bromine for cotton and polyester/cotton blend *Johnson, Moore* 561
extinguishability as a flammability criterion: concept and measurement *Miller, Goswami, Turner* 61
flameproofed cotton fabrics: determination of (Ca + Mg) by EDTA back-titration *Wasserman, Basch* 83
flame-resistant wool: machine-washable *Fincher, Guise, White* 623
flame retardancy: low add-on levels of chemicals on cotton *Basch, Lewin* 693
flame retardants for cotton: comparison of some phosphorus amides *Morris, Chance* 336
flame retardants for cotton: iodometric determination of P(III) *Frank, Drake* 633
flame retardants: radiation-induced addition to double bond in acrylamidomethyl cellulose *Walsh, Bittencourt, Rutherford* 590
flammability criterion: concept and measurement of extinguishability *Miller, Goswami, Turner* 61
flammable fabrics: heat transfer *Chouinard, Knodel, Arnold* 166
garment fires: laboratory modeling *Krasny, Fisher* 272
ignition: fabric *Wulff, Alkidas, Hess, Zuber* 577
natural flame-resistance of wool enhancement *Friedman, Whitfield, Tillin* 212
synthetics exposed to flame: some observations on shrinkage *Throne* 642

Flexing
compressive flexing: fatigue testing of fibers *Dunlop, Barker* 379

Formaldehyde
release of formaldehyde: chemical and physical properties of cotton modified by N-methylol agents *Vail, Pierce* 294

Friction
fiber friction: effect of guide surface roughness and speed *Schick* 103
friction and lubrication of synthetic fibers: two-component systems *Schick* 198
synthetic fiber friction: fiber material, lubricant viscosity and concentration *Schick* 342
synthetic fiber friction: guide temperature, loop size, pretension, denier, and moisture regain *Schick* 254

Garments (also see **Clothing**)
garment fires: laboratory modeling *Krasny, Fisher* 272
new approach to carefree garments: ALMI-Set Process *Payet* 194

Gelation
gelation characteristics: methylolated melamine polymerized by acid catalysis and copolymerized with DMDHEU *Blouin, Bertoniere, Martin, Rowland* 662

Geometry
geometry of crimp: three-dimensional *Brand, Scruby* 544

Grafted, Grafting
grafted acids of catalytic effect: radiation modification of cotton fabrics *Hussein* 607
grafting to fibers: to impact high elasticity *Williams, Woods, Stannett, Roldan, Sello, Stevens* 205

Hairiness
Barella-Viaplana hairiness meter: nature of measurement *Barella, Vigo* 493

Heat Transfer
heat and gamma and uv radiation: combined effects on fibrous polyamides *Hargreaves, Bowen* 568
heat transfer from flammable fabrics *Chouinard, Knodel, Arnold* 166

Hosiery
women's hosiery: mechanism of failure *Gibson* 42

Hydrolysis
enzymatic hydrolysis: structural information on cellulose *Rowland, Wade, Roberts* 351

Ignition (see **Flammability**)

Impact
high-speed missile impact: photographic study of energy absorption and cone radial velocity *Wilde, Roylance, Rogers* 753
impact high elasticity: grafting to fibers *Williams, Woods, Stannett, Roldan, Sello, Stevens* 205
impact: natural fiber science on manmade fiber technology *Zahn, Kusch, Müller-Schulte, Nissen, Rossbach* 601

Information Storage and Retrieval
utilization of research results 367
Comments *Tordoff* 367
Response *Backer* 369

Irradiation (see **Radiation**)

Keratin
structure of α-keratin *Spei* 692
wool-keratin: electron spin resonance of nature of copper (II) interaction *Kokot, Feughelman, Golding* 146
Kinetics
kinetics of isothermal shrinkage: polyester yarn in organic solvents *Ribnick, Weigmann, Rebenfeld* 176
Knits, Knitwear
knitted cotton: role of glass-transition of polymeric additives in durable-press finishing *Andrews, Frick* 19
knitted structures: jamming *Shanahan, Postle* 532

Laundering
fatty soil retention: influence of particulate and fatty soils on yellowing on unfinished Dacron/cotton blend fabric *Rounds, Purchase, Smith* 517
machine-washable flame-resistant wool *Fincher, Guise, White* 623
wet-soiling behavior of cotton: effect of crosslinking conditions *Fiebig, Rezk* 438
Lubrication
effect of fiber material and lubricant viscosity and concentration: friction and lubrication of synthetic fibers *Schick* 342
two-component systems: friction and lubrication of synthetic fibers *Schick* 198

Mechanical and Physical Properties (see **Properties, Chemical, Mechanical, Physical**)
Methylolation
methylolation of acid amides: effects of neighboring groups *Shukla, Shroff, Srivastava* 306
Microscopy
microscopical properties: some cellulose ethers *Cannizzaro, Rollins, Stanonis* 397
Migration (see **Fiber Migration**)
Missiles
high-speed missile impact: photographic study of energy absorption and cone radial velocity *Wilde, Roylance, Rogers* 753
Monofilaments
polypropylene monofilaments: thermally induced surface deformations *Fraser, Whitwell, Miller* 123
Monomers
acrylamide monomers with cotton copolymerized: photoinitiated polymerization onto cotton *Reine, Portnoy, Arthur* 638
Morphology
morphology and related dyeing and finishing properties: CDT technique of polyester fiber *Galil* 615
morphology of nylon 66: effect of near-ultraviolet radiation *Stowe, Salvin, Fornes, Gilbert* 704
morphology: spunbonded nonwoven fabric; characterization of filament arrangement in the web *Ericson, Baxter* 371

Needles
sewing needle temperature: effects of sewing conditions *Howard, Virgilio, Mack* 651
Nonwovens
nonwoven materials: new electrochemical process for fabrication *Bankert, Battistelli, Reddy* 247
spunbonded nonwoven fabrics: characterization of filament arrangement in web *Ericson, Baxter* 371
ultrathin nonwoven fabric: lining for artificial organs *Miller, Spivack, Tittmann, Byck* 728
Nylon (see **Polyamides**)

Oxidation
free-radical oxidation of cellulose: thermally initiated *Hinojosa, Arthur, Mares* 609

Photodegradation
photodegradation: nylon 66 exposed to near-uv radiation *Fornes, Gilbert, Stowe, Cheek* 714
photodegradation of certain disperse dyes: effect of light source *Irick, Boyd* 238
photodegradation of textile yarns: spectral distributions of sun-sky and xenon-arc radiation *Lock, Frank, Stevens* . . 483
photodegradation: some factors affecting nylon 66 and PET yarns *Lock, Frank* 502
Photoinitiation
photoinitiated polymerization onto cotton: copolymerization of acrylamide monomers with cotton *Reine, Portnoy, Arthur* 638
Polyamides (Nylon)
fibrous polyamides: combined effects of gamma and uv radiation plus heat *Hargreaves, Bowen* 568
nylon 66 and PET yarns: some factors affecting the photodegradation *Lock, Frank* 502
nylon 66: effect of near-uv radiation on morphology *Stowe, Salvin, Fornes, Gilbert* 704
nylon 66: effect of sulfur dioxide on chemical and physical properties *Zeronian, Alger, Omaye* 228
polyamide 6 films: diffusion of dyes *Datyner, Delaney, Iijima* 48
polyamide fiber: response by thermal and spectroscopic techniques during dyeing and heat-setting *Anton* 524
ultraviolet-irradiated nylon: below-break tensile behavior *Morton* 385
Polyesters
nylon 66 and PET yarns: some factors affecting the photodegradation *Lock, Frank* 502
polyester fiber: morphology and related dyeing and finishing properties by the CDT *Galil* 615
polyester yarn in organic solvents: isothermal, shrinkage kinetics *Ribnick, Weigmann, Rebenfeld* 176
Polyethyleneterephthalate (PET)
oriented polyethyleneterephthalate: effect of crystallinity on vapor-phase sorption of acetone *Sirur, Cates, Guion, Walsh* 723
Polymerization
copolymerization of acrylamide monomers with cotton: photoinitiated polymerization *Reine, Portnoy, Arthur* . . . 638
internal deposition of polymers: modification of properties of wool *Lipson* 625
methylolated melamines polymerized: gelation characteristics of acid catalysis and copolymerized with DMDHEU *Blouin, Bertoniere, Martin, Rowland* 662
polymerization and crosslinking of melamine-based reagents with cotton *Vail, Verburg* 67
Polypropylene
polypropylene monofilaments: thermally induced surface deformations *Fraser, Whitwell, Miller* 123
Properties, Chemical, Mechanical, Physical
below-break tensile behavior: gamma-irradiated nylon *Morton* 433
below-break tensile behavior: ultraviolet-irradiated nylon *Morton* 385
buckling: wool weft-knitted fabrics *Hamilton, Postle* 394
certain fiber properties: effect on bulk compressional resilience of some man-made fibers *Varma, Meredith* 627
chemical and physical properties of cotton modified by N-methylol agents; release formaldehyde *Vail, Pierce* 294
comparison physical properties: fabrics woven from open-end and ring spun yarns *Mohamed, Lord* 154
effect of draw ratio on mechanical properties, moisture sorption, and dyeability of cold-drawn nylon 6 filament *Varma, Cameotra* 745
fiber tenacity: spiral angle and orientation of swollen and stretched single cotton fibers *de Boer* 141
strength losses and structual changes: cotton fabric crosslinked with dimethylolethyleneurea *Segal, Timpa* 185
sulfur dioxide: effect on chemical and physical properties of nylon 66 *Zeronian, Alger, Omaye* 228
tensile properties of cotton fabric finished with DMEU: restoration by resin stripping *Segal, Timpa* 748

Radiation
gamma and uv radiation: combined effects plus heat on fibrous polyamide *Hargreaves, Bowen* 568
gamma-irradiated nylon: below-break tensile behavior *Morton* 433
near-ultraviolet radiation: effect on morphology of nylon 66 *Stowe, Slavin, Fornes, Gilbert* 704
near-uv radiation: exposed photodegradation of nylon 66 *Fornes, Gilbert, Stowe, Cheek* 715
radiation-induced addition: flame retardants to the double bond in acrylamidomethyl cellulose *Walsh, Bittencourt, Rutherford* 590
radiation modification of cotton fabrics: catalytic effect of grafted acids *Hussein* 607
ultraviolet-irradiated nylon: below-break tensile behavior *Morton* 385
Resilience
bulk compressional resilience of some man-made fibers: effect of certain fiber properties *Varma, Meredith* 627
Resins
durable-press resins: lactamide modification *Ohlson* 242
restoration by resin stripping: tensile properties of cotton fabric finished with DMEU *Segal, Timpa* 748
Rot Resistance
rot resistance and biocidal activity; halodeoxycellulose fabrics *Vigo, Daigle, Welch* 715

Setting
dyeing and heat-setting polyamide fiber: response to thermal and spectroscopic techniques *Anton* 524
permanent setting: washable wool *Sello, Tesoro* 309
Sewing Needles
sewing needle temperature: effects of sewing conditions *Howard, Virgilio, Mack* 651
Shirting
polyester/cotton shirting: changes in fabric dimensions during wet processing with particular reference *Mehta, Nanal* . 695
Shrinkage
dynamic shrinkage: polyester yarns in organic solvents *Ribnick, Weigmann* 316
isothermal shrinkage: kinetics of polyester yarn in organic solvents *Ribnick, Weigmann, Rebenfeld* 176
some observations on shrinkage: synthetics when exposed to flame *Throne* 642
Shrinkproofing
shrinkproofing treatment of wool tops: nature and function of the resin in the chlorine/resin *Makinson, Lead* 669
Soiling (see **Laundering**)
Soil Release (see **Laundering**)
Soil Removal (see **Laundering**)
Solvents
organic solvents: dynamic shrinkage of polyester yarns *Ribnick, Weigmann* 316
organic solvents: isothermal shrinkage kinetics of a polyester yarn *Ribnick, Weigmann, Rebenfeld* 176
Sorption
caustic sorption in cotton fibers: affected by fabric construction, pretreatment, and tension conditions during crosslinking *Honold* 408
effect of draw ratio on moisture sorption, dyeability, and mechanical properties of cold-drawn nylon 6 filament *Varma, Cameotra* 745

sorption characteristics: activated carbon fabric *Arons, Macnair, Erickson* . . . 539
sorption from trichloroethylene of three disperse dyes on polyester *Perkins, Hall* . . . 115
vapor-phase sorption of acetone in oriented PET: effect of crystallinity *Sirur, Cates, Guion, Walsh* . . . 723
Spectroscopic Techniques
thermal and spectroscopic techniques: comments about predicting fiber response *Anton* . . . 524
Spinning (see also **Textile Processing**)
spinning performance and yarn quality: effect of feeding conditions at the ringframe *Balasubramanian, Trivedi* . . . 1
Strain
strain-wave reflections: during ballistic impact of fabric panels *Freeston, Claus* . . . 348
Swelling
related swellability: properties of durable-press cotton fabrics *Nelson, Rousselle* . . . 218
single cotton fibers swollen and stretched: spiral angle and orientation in their relation to fiber tenacity *de Boer* . . . 141
swelling of compressed cotton: measurement of changes in thickness *Porter, Esposito* . . . 382
swelling to wrinkle recovery: chemically crosslinked cellulosic fabrics in swollen state *Ohe, Suzuki, Taga, Matsukawa* . . . 513

Temperature
glass-transition temperature: role of polymeric additives in durable-press finishing of knitted cotton *Andrews, Frick* . . . 19
transition temperature of dynamic glass-rubber: effect of detergents on polyester/cotton fabric *Middelburg* . . . 59
Testing Equipment and Procedures
CDT technique: polyester fiber morphology and related dyeing and finishing properties *Galil* . . . 615
iodometric determination of P(III) in flame retardants for cotton *Frank, Drake* . . . 633
fiber length measurements from a fibrogram *Tallant, Pittman* . . . 689
jamming tests: knitted structures *Shanahan, Postle* . . . 532
measurement apparatus: thickness of compressed cotton samples during swelling *Porter, Esposito* . . . 382
quantitative tests: intermolecular bonding between aromatic sulphonates and simple carbohydrates in water, and its relation to cellulose dyeing *Giles, McIntosh* . . . 489
Textiles
mechanics of snagging: plain-knitted structures *El-Shiekh, Backer* . . . 262
plain-knitted structures: mechanics of snagging *El-Shiekh, Backer* . . . 262
textiles: adsorption of particulate solids *Kissa* . . . 86
textiles finishing and dyeing: interaction of mass diffusion and chemical reaction *Rys* . . . 24
textile structures: ballistic impact *Roylance, Wilde, Tocci* . . . 34
Textile Processes
ALMI-Set process: a new approach to carefree garments *Payet* 194
draw ratio: effect on moisture sorption, dyeability, and mechanical properties of cold-drawn nylon 6 filament *Varma, Cameotra* . . . 745
optimum number of observations needed to estimate average staple length and fiber diameter in Indian wools *Chatterjee, Bumb, Saxena* . . . 588
ringframe: effect of feeding conditions upon yarn quality and spinning performance *Balasubramanian, Trivedi* . . . 1
snagging mechanics: plain-knitted structure *El-Shiekh, Backer* 262
Thermotex Process: finishing of cotton textile fabrics *Ruszndk* 128
Thermal Techniques
thermal and spectroscopic techniques: comments about predicting fiber response *Anton* . . . 524
Twistless
twistless yarns and woven fabrics *Lord, Mohamed* . . . 96
Theories
stochastic theory: a new aspect of carding *Abhiraman, George* 452

Wetting
heat of wetting: annealed wool *Haly, Snaith* . . . 54
humidity effects coefficient of energy dissipation: effect of fiber treatment *Cheng, Duckett* . . . 527
Wool
Indian wools: optimum number of observations needed to estimate average staple length and fiber diameter *Chatterjee, Bumb, Saxena* . . . 588
staple length and fiber diameter in Indian wools: optimum number of observations needed to estimate average *Chatterjee, Bumb, Saxena* . . . 588
Wool, Chemically Treated
annealed wool: heat of wetting *Haly, Snaith* . . . 54
flame-resistant wool: machine-washable *Fincher, Guise, White* 623
shrinkproofing treatment of wool tops: nature and function of resin in chlorine/resin *Makinson, Lead* . . . 669
washable wool: permanent setting *Sello, Tesoro* . . . 309
wool: enhancement of natural flame-resistance *Friedman, Whitfield, Tillin* . . . 212
wool-keratin: electron spin resonance of nature of copper (II) interaction *Kokot, Feughelman, Golding* . . . 146
wool modification: activated vinyl compounds *Koenig, Muir, Friedman* . . . 682
wool: modification of the properties through internal deposition of polymers *Lipson* . . . 625
wool: reactions with cyanuric chloride *Meier, Weigmann* . . . 74
Wrinkle Recovery
swelling to wrinkle recovery: chemically crosslinked cellulosic fabrics in the swollen state *Ohe, Suzuki, Taga, Matsukawa* . . . 513

Yarns
elastomeric yarns: dimensional properties of woven fabrics *Grosberg, Ibrahim* . . . 448
nylon 66 and PET yarns: some factors affecting the photodegradation *Lock, Frank* . . . 502
open-end and ring spun yarns: comparison of physical properties of woven fabrics *Mohamed, Lord* . . . 154
polyester yarn in organic solvents: isothermal shrinkage kinetics *Ribnick, Weigmann, Renenfeld* . . . 176
polyester yarns: dynamic shrinkage in organic solvents *Ribnick, Weigmann* . . . 316
textile yarns photodegradation: spectral distributions of sun-sky and xenon-arc radiation *Lock, Frank, Stevens* . . . 483
yarn quality and spinning performance: effect of conditions at the ringframe *Balasubramanian, Trivedi* . . . 1
yarn strength and irregularity: effect of drafting speed at ring frame *Sengupta, Kapoor* . . . 121
yarns twistless and woven fabrics *Lord, Mohamed* . . . 96